
डीपवेल हैंड पंप — घटकों की नामावली,
पहचान और पैकेजिंग

(पहला पुनरीक्षण)

**Deepwell Handpump —
Nomenclature Identification and
Packaging of Components**

(*First Revision*)

ICS 23.080

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Hand Pump Sectional Committee had been approved by the Mechanical Engineering Divisional Council.

This standard was first published in 1989. In order to incorporate the changes in the packaging industry and to provide easy identification of various components of the deepwell handpump a need was felt to revise this Standard. This first revision of this standard incorporates Amendment No. 1 (July 1995).

At its base level, product packaging serves to protect the product inside. Packaging is needed to protect the contents from damage, dust, dirt, leakage, pilferage, watering, and contamination. Packaging must also keep the product safe during shipment between the manufacturing facility and the retailer and must prevent damage while the product sits on the shelf. The outcome of such efforts is a more dependable and maintainable product.

This standard has been brought out on the basis of information available from the industry and users for proper identification of components of deepwell handpumps. For every nomenclature, a part classification is fixed and shall be utilized in drawings, prospectus, spare parts list and bill of materials as well as inventory system and data processing.

The composition of the Committee responsible for the formulation of this standard is given in Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

DEEPWELL HANDPUMP — NOMENCLATURE IDENTIFICATION AND PACKAGING OF COMPONENTS

(*First Revision*)

1 SCOPE

The standard is applicable for the nomenclature and identification of the components of the deep well hand pump.

2 REFERENCES

The Indian Standards listed in Annex A contain provisions which through reference in this text constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in Annex A.

3 NOMENCLATURE

As given in Fig. 1. A brief description of some of the components is given below. For more details, see IS 15500 (Part 1 to 8).

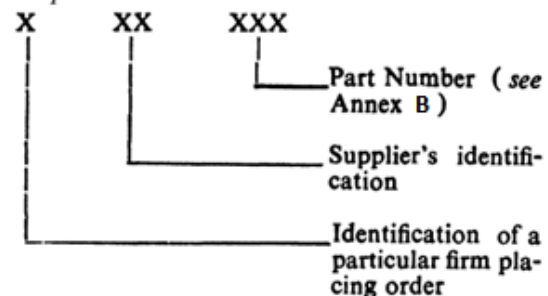
- a) *Pump Head Assembly* — The mechanism is above the ground level and operating the Plunger.
- b) *Cylinder Assembly* — Contains plunger, valve, etc., lifting water upward in each Stroke.
- c) *Connecting Rod* — Provides linkage between the pump head and the cylinder.

- d) *Rising Pipe* — Carries water from the cylinder to the water tank.

4 MARKING OF COMPONENTS

Each component, sub-assembly and assembly shall be marked with manufacturers' identification as per details given in Annex B.

Example:



5 ANTI-CORROSIVE TREATMENT

All components shall be suitably treated as per 6 of IS 15500 (Part 1 to 8) before supply and packing.

6 PACKING

For packing details, see Annex B.

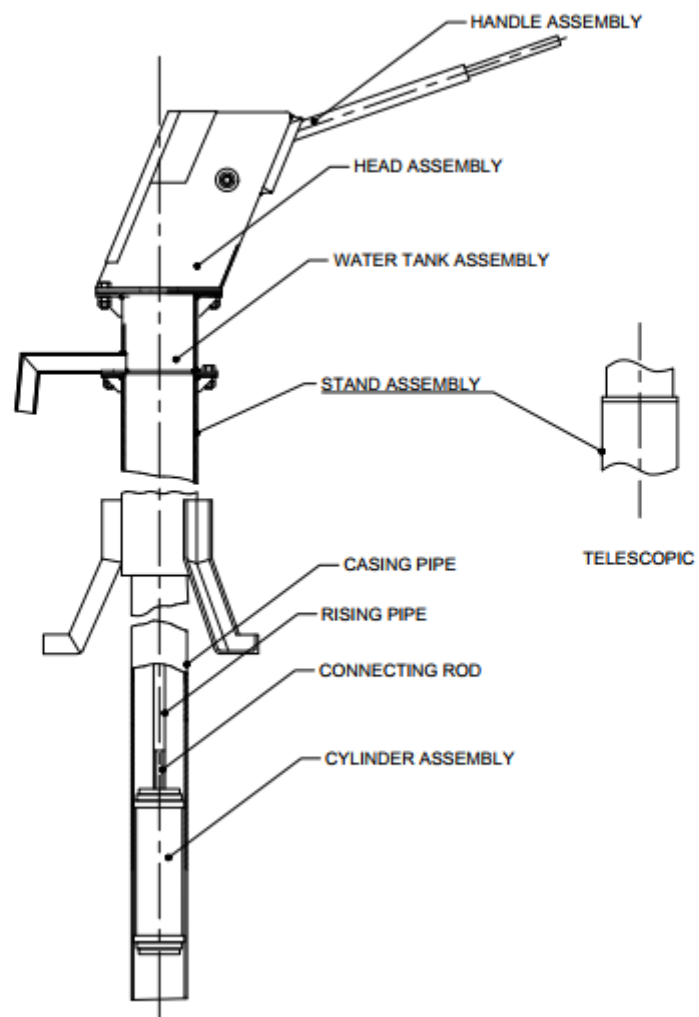


FIG. 1 NOMENCLATURE OF DEEPWELL HAND PUMPS

ANNEX A

(Clause 2)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
4740 : 1979	Code of practice for packaging of steel tubes (first revision)	IS 15500 (Part 1 to 8) : 2004	Deepwell handpumps, components and special tools — Specification (fifth revision)

ANNEX B

(Clauses 4 and 6)

COMPONENTS AND THEIR SUPPLY

Abbreviations	{	PH — Pump head components
	{	HPMM — Hand pump manufacturer marking
	{	PMM — Primary manufacturer marking

Sl No.	Component Identification Number	Description	Individual Packing	Type of Marking	Bulk Packing
(1)	(2)	(3)	(5)	(6)	(7)
1	PH 01	Hexagonal Bolt M 12 × 40	Polyethylene bag	PMM	Wooden box
2	PH 02	Hexagonal Nut	Attached to chain coupling for locking last connecting rod to chain assembly	—	—
3	PH 03	Pump head with cover, bolt and washer	Wrapped in paper or opened polyethylene bags covered with straw opes	HPMM (on head flange, name plate)	One
4	PH 04	Cover	Crate	HPMM	32 No. Maximum in wooden crate
5	PH 05	Bolt cover	Polyethylene bag	PMM	Wooden box
6	PH 06	Washer (flat for cover)	Polyethylene bag	—	Wooden box
7	PH 07	Handle (welded to bearing housing, roller chain and guide)	Wrapped in straw rope and cover with hessian	HPMM	One

NOTE — Parts are not supplied separately because of welding alignment.

(Continued)

Sl No.	Component Identification Number	Description	Individual Packing	Type of Marking	Bulk Packing
(1)	(2)	(3)	(5)	(6)	(7)
8	PH 08	Bearings	Each bearing	PMM	Wooden box
9	PH 09	Hexagonal M 10 × 1.5 × 40	Polyethylene bag	PMM	Wooden box
10	PH 10	Hexagonal bolts Nyloc Nut 10 × 1.5	Polyethylene bag	—	Wooden box
11	PH 11	Handle axle	Polyethylene sleeve with thread protector	HPMM on milled portion	Wooden box
12	PH 12	Chain with coupling	Polyethylene bag duly lubricated with graphite grease	HPMM	Wooden box
13	PH 13	Spacer	Polyethylene bag	—	Wooden box
14	PH 14	Axle washer (4 mm thick)	Polyethylene bag	—	—
15	PH 15	Water tank assembly	Straw rope with hessian cover	HPMM	Maximum four in one wooden crate
16	PH 16	Stand assembly	Wooden plank on flange and packed with straw rope with hessian cover	HPMM (On flange)	One
17	PH 17	Stand assembly (telescopic)	Wooden plank on flange and packed with straw rope with hessian cover	HPMM (On flange)	One
18	CR 01	Connecting rod (mild steel)	Polyethylene with hessian cover with plastic thread protector end plug for coupler	HPMM (month/year and batch number of manufacturer on hexagonal coupler)	Maximum ten rods with plastic protector for threads (bundle to be wrapped first in polyethylene cover and then in hessian cloth)
19	CR 02	Connecting rod (stainless steel)	Polyethylene with hessian cover with plastic thread protector end plug for coupler	HPMM (month/year and batch number of manufacturer on hexagonal coupler)	Maximum ten rods with plastic protector for threads (bundle to be wrapped first in polyethylene cover and then in hessian cloth)
20	CR 03	Hexagonal coupler (mild steel) M 12, 50 or 20 mm long, 19A/F	Polyethylene bag	HPMM	Wooden box

(Continued)

SI No.	Component Identification Number	Description	Individual Packing	Type of Marking	Bulk Packing
(1)	(2)	(3)	(5)	(6)	(7)
21	CR 04	Hexagonal coupler (stainless steel) M 12, 50 or 20 mm long, 19A/F	Polyethylene bag	HPMM	Wooden box
22	CA 01	Cylinder assembly (complete)	Polyethylene bag	HPMM (Year of manu-facture on cylinder body in raised letters and SI No. punched)	Maximum six numbers in wooden box
23	CA 02	Upper valve assembly complete with plunger yoke body, upper valve seat, upper valve rubber seating, pump buckets, spacer and follower	Individually packed cardboard carton	HPMM (on components)	Wooden box
24	CA 03	Upper valve comprising guide, upper valve seat and rubber seating	Cardboard carton individually wrapped in paper or polyethylene bag	HPMM (on rubber valve retainer and check valve seat)	Wooden box
25	CA 04	Lower valve assembly complete with check valve seat rubber seat retainer	Cardboard carton	HPMM (on rubber valve retainer and check valve seat)	Wooden box
26	CA 05	Lower valve comprising rubber seat retainer, rubber seating and check valve guide	Cardboard carton individually wrapped in paper	HPMM (on rubber valve retainer)	Wooden box
27	CA 06	Reducer cap	Individually in polyethylene bag	HPMM	Wooden box
28	CA 07	Cylinder body with brass liner	Individually in polyethylene bag with thread protector	HPMM	Wooden box
29	CA 08	Plunger rod	Polyethylene bag with thread protector	HPMM	Wooden box
30	CA 09	Sealing ring	Plastic or cardboard container	HPMM (with ink, waterproof)	Wooden box
31	CA 10	Plunger yoke body	Cardboard carton individually wrapped in paper	HPMM	Wooden box

(Concluded)

Sl No.	Component Identification Number	Description	Individual Packing	Type of Marking	Bulk Packing
(1)	(2)	(3)	(5)	(6)	(7)
32	CA 11	Rubber seating (for upper valve assembly)	Polyethylene bag	HPMM	Wooden box
33	CA 12	Upper valve	Cardboard carton individually wrapped in paper with plastic rubber thread protector	—	Wooden box
34	CA 13	Check valve guide	Cardboard carton individually wrapped in paper with plastic rubber thread protector	—	Wooden box
35	CA 14	Rubber seat (for lower valve assembly)	Polyethylene bag	HPMM	Wooden box
36	CA 15	Spacer	Cardboard carton individually wrapped in paper	HPMM	Wooden box
37	CA 16	Rubber seat retainer	Cardboard carton individually wrapped in paper	HPMM	Wooden box
38	CA 17	Check valve	Cardboard carton individually wrapped in paper	HPMM	Wooden box
39	CA 18	Follower	Cardboard carton individually wrapped in paper	HPMM	Wooden box
40	CA 19	Pump bucket	Polyethylene/cardboard container	HPMM (with ink, water proof)	Wooden box
41	RP 01	Riser pipes in 3 metres lengths with both ends threaded and one end fitted with socket	As per IS 4740	HPMM	—
42	RP 02	Socket, seamless	Polyethylene cover	HPMM	Wooden box (10 in one)

CA — Cylinder assembly component.

CR — Connecting rod component.

RP — Riser pipe components.

ANNEX C*(Foreword)***COMMITTEE COMPOSITION**

Handpumps Sectional Committee, MED 27

<i>Organization</i>	<i>Representative(s)</i>
Ministry of Micro, Small and Medium Enterprises, New Delhi	SHRI G. SHANMUGANATHAN (<i>Chairman</i>)
AOV International, Noida	SHRI VISHAL KAPOOR SHRI K. L. VERMA (<i>Alternate</i>)
Ajay Industrial Corporation, Ghaziabad	SHRI DIGENDRA PRATAP S.
Andhra Pradesh Government, Panchayati Raj and Rural Development Department, Hyderabad	SHRI G. R. NAIDU
Apex International, Noida	SHRI LALIT KHANNA
Directorate of Groundwater Survey and Development Agency, Nagpur	SHRI H. S. DHOKLE SHRI N. L. LONKAR (<i>Alternate</i>)
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SHRI LOKRAJ MEENA
SCIENTIST 'B' (MED), BIS

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